

L 17997-66

ACC NR: AP6008090

determine the number of hydroperoxide molecules united with one molecule of copper stearate in the complex ($n = 2$), as well as the rate constant of the decomposition of the complex into free radicals, and the equilibrium constant of complex formation. It was shown that the introduction of copper stearate into oxidizing n-decane accelerates the rate of the radical as well as of the molecular decomposition of the hydroperoxide, leading to the formation of some non-radical products. Free-radical induced, chain decomposition of the hydroperoxide is completely absent in the presence of copper stearate. The authors advance the assumption that the increased rate of molecular decomposition of the hydroperoxide under the influence of copper stearate is one of the causes of the observed retarding effects of copper salts. [VS]
Orig. art. has: 5 figures.

SUB CODE: 21 SUBM DATE: 04Dec64/ ORIG REF: 003/ OTH REF: 003/ ATD PRESS:

4213

Card

2/2

L 23402-66

ACC NR: AP6014008

SOURCE CODE: UR/0219/65/060/007/0102/0104

AUTHOR: Kaplun, N. A.; Drenova, L. M.; Belich, Ye. M.--Belich, E. M.; Emanuel', N. M.
--Emanuel, N. M. (Professor; Corresponding member AN SSSR); Parin, V. V. (Active
member AMN SSSR)

ORG: Department of Chemical and Biological Processes /headed by Corresponding member
AN SSSR, Professor N. M. Emanuel'/, Institute of Chemical Physics /directed by Acade-
mician N. N. Semenov/, AN SSSR (Otdel khimicheskikh i biologicheskikh protsessov
Instituta khimicheskoy fiziki AN SSSR); Department of Balneological Physiotherapy
/headed by Corresponding member AMN SSSR, Professor A. N. Obresov/, Central Scientific
Research Institute of Health Resorts and Physiotherapy /directed by Candidate of
medical sciences G. N. Pospelova/, Ministry of Public Health Services, SSSR, Moscow
(Otdel bal'neofizioterapii Tsentral'nogo nauchno-issledovatel'skogo instituta
kurortologii i fizioterapii Ministerstva zdravookhraneniya SSSR)

TITLE: Effect of direct current on the development of transplanted leukosis in mice

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 60, no. 7, 1965, 102-104

TOPIC TAGS: bone marrow, mouse, electrophysiology, direct current, hematopoiesis

ABSTRACT: Investigations were conducted to determine the effect of different
doses of direct currents on the development of leukosis. Eighty male mice
with transplanted La leukosis were under observation. The weight of the

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UDC: 615.843-03: 616-006.446-092.9+616-006.446-035.8437-092.9

L 23402-66

ACC NR: AP6014008

spleen, the number of leukocytes and hemocytoblasts in one square millimeter of blood, and the percent content of hemocytoblasts in the bone marrow of controls, and in the animals to which direct current was applied were studied. The current was applied to the experimental mice by placing electrodes on both shaved sides of the animals. The electrode placed on the right side was connected to the positive pole of a galvanizing apparatus; the electrode placed on the left side of the animals was connected to the negative pole. The current was applied at different intensities for various periods. Four series of experiments were carried out. The animals were sacrificed at different times. Examinations established that a direct current not only did not increase the weight of the spleen, but in some cases decreased it; it practically caused no change in the number of leukocytes and hemocytoblasts in the blood; neither did it have any effect on the number of hemocytoblasts in bone marrow. It was thus established that direct current, regardless of the dosage applied, has no effect on the development of transplanted leukosis. This paper was presented by V. V. Parin, Active member AMN SSSR. The authors thank N. V. Puchkov and N. A. Vinogradov for assistance in the work. Orig. art. has: 3 figures. [JPRS]

SUB CODE: 06 / SUBM DATE: 10Dec63 / ORIG REF: 008

Card 2/2 20

1-22902-66 EWT(m)	
ACC NR: AP5025869	SOURCE CODE: UR/0020/65/164/004/0934/0936
AUTHOR: Burlakova, Ye. B.; Gaintseva, V. D.; Slepukhina, L. V.; Khrapova, N. G.; Emanuel', N. M. (Corresponding Member AN SSSR)	
ORG: none	
TITLE: Relationship between the <u>radiation protective</u> and antitumoral action of inhibitor-antioxidants	
SOURCE: AN SSSR. Doklady, v. 164, no. 4, 1965, 934-936	
TOPIC TAGS: radiobiology, radiation protection, radiation sickness, radiation biologic effect, carcinoma, alkylphenol, phenol, arine, organic nitrogen compound, mouse	
ABSTRACT: The radiation protective, antitumorigenic and radiosensiti- zing properties of a number of inhibitors were determined. Protection against radiation shown by 4-methyl-2,6-diteritary butylphenol, as determined by survival of mice after exposure to 550 r radiation, was maximum at injections of C = 50 mg/kg. At C = 100 mg/kg = C _{negative} the mortality rate equaled that of the control; dosages in excess of C _{negative} were considered radiosensitizing. The behavior of all the inhibitors studied--polyphenols, substituted hydroxypyridines,	
Card 1/2	

L 22902-55

ACC NR: AP5025869

aminophenols and a stabilized free radical--was qualitatively similar. A linear relationship between the antitumorogenic and radiation protective action of the antioxidants was established in a study of the function of leucosis development retardation with respect to the dosage C_{therapeutic}/C_{negative}. This leads the way to determining conditions for using inhibitors for suppressing tumorigenic processes and in experimental radiation sickness. Orig. art. has: 1 table, 2 figures and 12 formulas.

SUB CODE: 06/ SUBM DATE: 04Mar65/ SOV REF: 007/

Card 2/2

B.L.G.

L 31196-66 EWP(j)/EWI(m) RM

ACC NR: AP6022567

SOURCE CODE: UR/0216/66/000/002/0183/0196

AUTHOR: Emanuel', N. M.; Burlakova, Ye. B.; Kruglyakova, K. Ye.; Sapezhinskiy, I. I.

ORG: Institute of Physical Chemistry, AN SSSR, Moscow (Institut khimicheskoy fiziki AN SSSR)

TITLE: Studies on free-radical reactions following irradiation of model systems and the role of radicals in radiation injury 19

SOURCE: AN SSSR. Izvestiya. Seriya biologicheskaya, no. 2, 1966, 183-196

TOPIC TAGS: free radical, irradiation effect, radiation injury, recombination reaction, protein, free radical stabilization, electron spin resonance, exchange reaction, DNA

ABSTRACT: Oxidative recombination of the radicals of irradiated proteins is a two-stage process: peroxide radical formation and disproportionation (during which chemoluminescence arises). Analysis of electron spin resonance and oxygen absorption by irradiated proteins reveals that the reaction proceeds through a transfer of free valence. The authors concluded from the results of the electron spin resonance studies and chemoluminescence that an exchange reaction is possible between the radicals of irradiated proteins and the inhibitors of free-radical reactions.

Free-radical reactions play an important part in radiation-induced DNA degradation. Study of the action of various inhibitors showed that gallic acid, phenylethylamine, and oxypyridine derivatives markedly weakens the effect of irradiation. Experiments on animals indicated that the degree of protection is directly related to the antiradical activity of the inhibitors used in free-radical reactions. Orig. art. has: 18 figures and 2 tables. [JPRS] SUB CODE: 06, 20, 07 / SUBM DATE: 11Dec65 / ORIG REF: 015 / OTI REF: 001 UDC: 577.891

Card 1/1 CC

0915

0578

L 29185-66-

ACC NR: AP6018848

SOURCE CODE: UR/0020/55/163/002/0483/0455

AUTHOR: Emanuel', N. M. (Corresponding member AN SSSR); Verhel', Ye. M.; Rapoport, I. A.; Kruglyak, S. A.; Dronova, L. M.; Ostrovskaya, L. A.

ORG: Institute of Chemical Physics, AN SSSR (Institut khimicheskoy fiziki AN SSSR)

TITLE: Antitumor properties²² of powerful chemical mutagens (nitrosourea derivatives)

SOURCE: AN SSSR. Doklady, v. 163, no. 2, 1965, 483-485

TOPIC TAGS: mouse, tumor, chemotherapy, aromatic hydrocarbon

ABSTRACT: The authors studied the effect of methyl-, ethyl-, and propyl-nitrosoureas (MNU, ENU, and PNU, respectively) on ascitic strains of mouse tumors (Ehrlich's carcinoma, sarcoma 37, and sarcoma 180) in leukemic mice (C57BL strain) and on solid rat tumors (sarcoma 45, Walker's carcinosarcoma, and sarcoma SSK). Two criteria were used to evaluate the compounds: (1) coefficient of inhibition k, which shows how much more slowly the tumor process develops in experimental animals as compared with the control; (2) percentage of inhibition of tumor growth. The results of the experiments showed that up to 100% inhibition was achieved by all three compounds, but the k values differed. Moreover, MNU and ENU increased the survival time of the animals by 4 days; PNU, by 9 days. Like the polycyclic hydrocarbons, the nitrosourea derivatives tested are highly carcinogenic as well as carcinostatic. Orig. art. has: 2 figures. [JPRS]

SUB CODE: 06, 07 / SUBM DATE: 02Mar65 / ORIG REF: 005 / OTH REF: 014
Card 1/1 BLG

L 37264-66 ENT(1)/T RO/JK

ACC NR: AP6028846

(A) SOURCE CODE: UR/0321/66/027/003/0276/0281

AUTHOR: Pavlovskiy, Ye. N. (Deceased); Talyzin, F. F.; Emanuel', N. M.;
Val'tseva, I. A.; Pchelkina, A. A.; Yurkova, I. B.

48

B

ORG: Institute of Chemical Physics, AN SSSR (Institut khimicheskoy fiziki AN SSSR);
Zoological Institute, AN SSSR (Zoologicheskiy institut AN SSSR); First Moscow Medical
Institute im. I. M. Sechenov (Pervyy Moskovskiy meditsinskiy institut); Institute
im. I. M. Sechenov (Pervyy Moskovskiy meditsinskiy institut); Institute of Epidemiology
and Microbiology im. N. F. Gamaleya, AMN SSSR (Institut epidemiologii i mikrobiologii
AMN SSSR)

TITLE: Neutralizing effect of inhibitors of radical-chain processes (propylgallate),
heparin, and hydrocortisone on viper venom

SOURCE: Zhurnal obshchey biologii, v. 27, no. 3, 1966, 276-281

TOPIC TAGS: mouse, toxicology, free radical, biologic secretion, drug effect

ABSTRACT: Mice were injected subcutaneously with 1 ml of a solution containing
0.02 mg of venom and 3.75 mg of propylgallate (a typical inhibitor of free-radical
processes). Some 73% of the experimental mice survived as compared with only 6%
of the controls. The survival rate of mice after simultaneous injection of heparin
and venom was 63.7% (subcutaneous) and 77.7% (intravenous) as compared with 22.2%
of the controls. The subcutaneous injection of venom and hydrocortisone resulted in
the death of 5 out of 11 mice as compared with 9 out of 11 control animals. The
authors concluded by recommending the use of propylgallate, heparin, or hydrocortisone
to treat viper bites only if the specific "antigurza" serum is not available. Safe
when administered in therapeutic doses, these drugs can mitigate the effects of
severe poisoning by snake venom. Orig. art. has: 1 figure. [JPRS: 36,932]

SUB CODE: 06 / SUBM DATE: 02Feb66 / ORIG REF: 025 / OTH REF: 002

Card 1/15

L 0111-66 ENT(m)/EXP(j) RM

ACC NR: AP6013904

(A)

SOURCE CODE: UR/0076/66/040/004/0762/0765

AUTHOR: Vetchinkina, V. N.; Mayzus, Z. K.; Emanuel', N. M.

ORG: Institute of Chemical Physics, Academy of Sciences, SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: The radical mechanism of phenol conversion in a hydrocarbon medium

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 4, 1966, 762-765

TOPIC TAGS: phenol, hydrocarbon, reaction mechanism, oxidation inhibitor

ABSTRACT: Phenol dissolved in n-decane was heated at 140C in a stream of nitrogen preliminarily purified of oxygen traces, in an attempt to clarify if consumption of the inhibitor without participation of RO₂ radicals is related to oxidation of the inhibitor or represents a parallel reaction requiring no oxygen. Results indicate that the consumption of phenol heated in an oxygen-free hydrocarbon environment is accompanied by the formation of free radicals. The radical formation rate constant for phenol in n-decane is given as $k=9.6 \cdot 10^{-5}$ 1/mol·sec at 140C. The low efficiency of phenol as an inhibitor of the oxidation of the hydrocarbon discussed is ascribed to an interaction between the two. Orig. art. has: 2 formulas and 4 figures.

SUB CODE: 07/ SUBM DATE: 05Jul65/ ORIG REF: 004/ OTH REF: 003

Cord 1/1 *pld* UDC: 541.124/.128

10126-66 ENT(m) ENP(j) RM

ACC NR: AP6011656

SOURCE CODE: UR/0020/66/167/003/0579/0582

AUTHOR: Blyumberg, E. A.; Valov, P. I.; Norikov, Yu. D.; Emanuel', N. M.
(Corresponding member AN SSSR)

ORG: Institute of Chemical Physics, Academy of Sciences, SSSR (Institut khimi heskoy fiziki / Akademi nauk SSSR)

TITLE: Co-oxidation of unsaturated hydrocarbons and other organic compounds as a method of synthesizing oxides of olefins

SOURCE: AN SSSR. Doklady, v. 167, no. 3, 1966, 579-582

TOPIC TAGS: organic oxide, olefin, aldehyde, methyl ethyl ketone, aromatic hydrocarbon, organic synthetic process

ABSTRACT: The report describes in general terms a procedure for direct derivation of olefin oxides through the cooxidation of unsaturated hydrocarbons and other organic compounds oxidizing more readily than the olefin involved. The process utilizes the active oxygen of peroxide radicals and hydroperoxides which comprise the primary intermediate products of oxidation of organic compounds. Aldehydes, methylethylketone and alkylaromatic and paraffin hydrocarbons were employed in systems with propylene, isobutylene, and ethylene. Olefin oxides

Cord 1/2

UDC: 542.91+541.128.2

10126-66

ACC NR: AP6011656

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were obtained in all cases. Aldehydes and methylethylketone gave best yields. Peroxide radicals RO_2 comprised the primary epoxidizing agent. Orig. art. has: 1 table and 4 figures.

SUB CODE: 07/ SUBM DATE: 04Oct65/ ORIG REF: 006/ OTH REF: 002

Card 2/2 *plus*

L 34092-66 ENT(m)/ENP(j)/T WW/JW/RM

ACC NR: AP6012924

SOURCE CODE: UR/0020/66/167/005/1105/1108

AUTHOR: Skibida, I. P.; Mayzus, Z. K.; Ivanov, S. K.; Emanuel', N. M. (Corresponding member AN SSSR)

ORG: Institute of Chemical Physics, Academy of Sciences, SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: Mechanism of the chain propagation reaction in liquid-phase oxidation processes in the presence of salt catalysts and cobalt stearate

SOURCE: AN SSSR. Doklady, v. 167, no. 5, 1966, 1105-1108

TOPIC TAGS: free radical, hydroperoxide, oxidation kinetics, oxidation inhibition, cobalt compound, decane

ABSTRACT: In order to determine whether the products of catalytic oxidation of n-decane are formed and consumed by a chain or a molecular mechanism, an inhibitor was introduced into the oxidation reaction, which was already under way. To n-decane oxidized to a certain degree was added cobalt stearate (1.2×10^{-3} mole/liter), followed 15 min later by the inhibitor N-phenyl- β -naphthylamine or α -naphthol (about 5×10^{-5} mole/liter). Following the introduction of the inhibitor, the curves of the accumulation of all the products showed a sharp break, and the products ceased to be formed. This is interpreted as evidence that in the reaction of catalyzed oxidation, alcohols, ketones, and acids are formed and consumed by a chain mechanism. The majority of the oxidation products were found to form directly from

Card 1/2

UDC: 541.128.2

L 34092-66

ACC NR: AP6012924

the RO_2 radical. The rates of formation and consumption of all the oxidation products were determined. By comparing the rates of formation of the products and the rates of decomposition of the hydroperoxides, it was shown that in the oxidation of n-decane in the presence of $CoSt_2$, in contrast to a noncatalyzed oxidation, the hydroperoxides are not the only primary intermediates; a considerable part of peroxide radicals are converted into alcohols, ketones, and acids by skipping the step of hydroperoxide formation. Orig. art. has: 2 figures and 1 table.

SUB CODE: 07 / SUBM DATE: 12Aug65 / ORIG REF: 008 / OTH REF: 003

Card 2/2 vmb

ACC NR: AP6032114

SOURCE CODE: UR/0301/66/012/005/0452/0455

AUTHOR: Kukushkina, G. V.; Gorbacheva, L. B.; Emanuel', N. M. ^{Moscow}

ORG: Institute of Chemical Physics, Academy of Sciences SSSR, (Institut khimicheskoy fiziki AN SSSR)

TITLE: Inhibition of the biosynthesis of protein and nucleic acids by phenolic compounds in vivo

SOURCE: Voprosy meditsinskoy khimii, v. 12, no. 5, 1966, 452-455

TOPIC TAGS: biochemistry, biosynthesis, protein ~~synthesis~~, nucleic acid, ~~nucleic~~ ~~acid~~, phenol derivative, metabolic effect, ionole

ABSTRACT: *In vivo* experiments on mice affected with Erlich ascites tumor and hepatoma XXII showed that the phenol derivatives propylgallate and ionole (4-methyl-2,6-di-tert-butyl-phenol) inhibited protein and nucleic acid synthesis in some organs and tissues. Propylgallate did not affect protein biosynthesis in normal kidney tissue but was effective against cancerous tissue. A 200 mg/kg dose of ionole suppressed uptake of C_{14} labeled amino acids almost completely. Further experiments showed that the cellular nucleic acid fractions from cancerous cells were the most sensitive to the action of these compounds. [WA-50; CBE No: 12]

SUB CODE: 06/ SUBM DATE: 19Nov64/ ORIG REF: 014/ OTH REF: 002/
Card 1/1 UDC: 615.778.1-092:612.015.348-064+616.015:348.014.46-064.65.778

ACC NR: AP6032585

SOURCE CODE: UR/0062/66/000/008/1334/1339

AUTHOR: Valov, P. I.; Blyumberg, E. A.; Emanuel', N. M.

ORG: Institute of Chemical Physics, Academy of Sciences, SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: Kinetics and mechanism of the combined oxidation of propylene and acetaldehyde

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 8, 1966, 1334-1339

TOPIC TAGS: combustion modifier, oxidation mechanism, free radical, oxidation inhibitor, *oxidation kinetics, acetaldehyde, olefin*

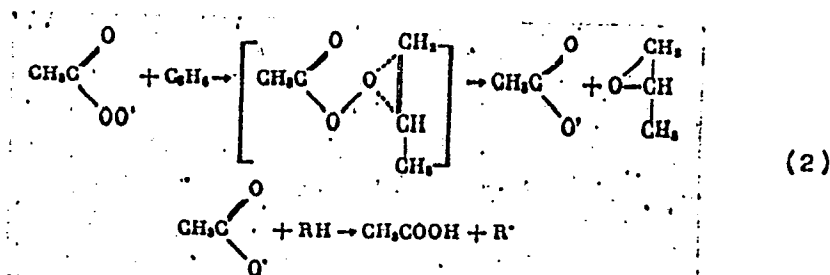
ABSTRACT: A study has been made of the kinetics and mechanism of the combined oxidation of an olefin and an aldehyde. This reaction was previously shown to be a step common to the mechanisms of oxidation of unsaturated hydrocarbons and of the combined oxidation of olefins and organic compounds of various classes. The reagents used were acetaldehyde, propylene, and air. The reaction was carried out in a special stainless steel autoclave at 70-80C and 50 atm. Under these conditions the reaction proceeds in the liquid phase. Reaction products were subjected to chemical and gas-liquid chromatographic analysis. It was

Card 1/4

UDC: 541.124+542.943

ACC NR: AP6032585

found that propylene oxide and acetic acid are the end products of the reaction; propylene glycol monoacetate is formed along with the propylene oxide. This was confirmed by control experiments in which some propylene oxide was added to the initial reagents. A reaction mechanism was postulated for the formation of propylene oxide:

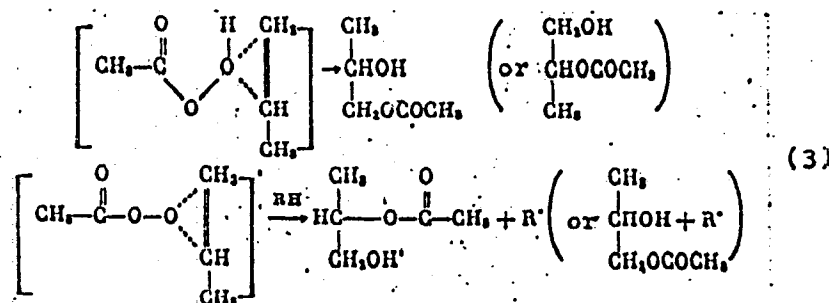


To determine whether reaction (1) or (2) prevails, experiments were carried out in which an inhibitor (ionol) which reacts with free radicals was added to the reaction mixture at the moment corresponding to

Card 2/4

ACC NR: AP6032585

the maximum rate of formation of propylene oxide. On addition of the inhibitor, acetaldehyde consumption and reaction product accumulation virtually ceased; propylene oxide concentration increased only slightly. This indicates that propylene oxide is formed mainly via free radicals (reaction (2)). To determine the contribution of reaction (1), experiments involving the reaction of peracetic acid with propylene were carried out; the rate of formation of propylene oxide was found to be about 15% of its maximum rate of formation in the reaction of interest. It was concluded that the principal epoxidizing agent in the combined oxidation of unsaturated compounds and aldehydes is the acetyl peroxide radical, $RC(=O)O\cdot$; rather than the corresponding peracid. It was also postulated that propylene glycol is formed via the isomerization of the complex intermediates formed in reactions (1) and (2):



Card 3/4

ACC NR: AP6032585

Thus the reactions of formation of propylene oxide and propylene glycol monoacetate represent an alternate course of the chain propagation reaction, which is simultaneous to the reaction $RO_2 + \text{acetaldehyde}$. This paper represents P. I. Valov's dissertation. Orig. art. has: 4 figures. [WA-68]

SUB CODE: 07,21/ SUBM DATE: 03Feb66/ ORIG REF: 005/
OTH REF: 001

Card 4/4

ACC NR: AP6011689 SOURCE CODE: UR/0063/86/011/002/0186/0195
AUTHOR: Emanuel', N. M. (Corresponding member AN SSSR)
ORG: none
TITLE: Free-radical elementary processes in chain reactions of liquid phase oxidation
SOURCE: Vsesoyuznoye khimicheskoye obshchestvo. Zhurnal, v. 11, no. 2, 1966, 186-195
TOPIC TAGS: free radical, oxidation, chain reaction, reaction mechanism, liquid phase oxidation, oxidation kinetics
ABSTRACT: On the basis of a number of studies in the Soviet Union and abroad, a schematic diagram of oxidation of hydrocarbons and other organic substances and the role of free radicals in these chain reactions have been established. The rate constants for elementary processes were determined for a number of chain reactions. Investigations conducted at the Institute of Physical Chemistry AN USSR provided new data for supplementing the conventional chart of liquid-phase oxidation with additional elementary reactions and have made it possible to establish
Card 1/2 UDC: 539.175

ACC NR: AP6011689

their chemical mechanism in both the initial and in their advanced stages. The present paper describes the elementary processes involved in the mechanism of these reactions. They include: formation of free radicals at the chain-initiation stage, formation of intermediate peroxide compounds, the role of hydrogen bonds in the decomposition of hydroperoxides into radicals, formation of free radicals during decomposition of intermediate substances of nonperoxide nature, formation of radicals in catalytic oxidation of hydrocarbons, radical interaction with hydroperoxides and alcohols, isomerization and decomposition reactions of a peroxide radical, addition of radicals to double bonds, chain termination in liquid-phase oxidation, and the effect of polarity of the medium on the rate constants of radical reactions. The author regards this study as another phase in the theory of degenerate-branched reactions and of the mechanism of liquid-phase oxidation as a contribution to the prospective general theory of chain processes. Orig. art. has: 8 diagrams, 4 tables, and 42 formulas. [KP]

SUB CODE: 07/SUBM DATE: none/ORIG REF: 042/OTH REF: 016/

Card 2/2

ACC NR: AP6032114

SOURCE CODE: UR/0301/66/012/005/0452/0455

AUTHOR: Kukushkina, G. V.; Gorbacheva, L. B.; Emanuel', N. M.

ORG: Institute of Chemical Physics, Academy of Sciences SSSR ^{Moscow} (Institut khimicheskoy fiziki AN SSSR)

TITLE: Inhibition of the biosynthesis of protein and nucleic acids by phenolic compounds in vivo

SOURCE: Voprosy meditsinskoy khimii, v. 12, no. 5, 1966, 452-455

TOPIC TAGS: biochemistry, biosynthesis, protein ~~synthesis~~, nucleic acid, ~~nucleic acid~~, ~~phenol derivative~~, phenol derivative, metabolic effect, ionole

ABSTRACT: *In vivo* experiments on mice affected with Erlich ascites tumor and hepatoma XXII showed that the phenol derivatives propylgallate and ionole (4-methyl-2,6-di-tert-butyl-phenol) inhibited protein and nucleic acid synthesis in some organs and tissues. Propylgallate did not affect protein biosynthesis in normal kidney tissue but was effective against cancerous tissue. A 200 mg/kg dose of ionole suppressed uptake of C_{14} labeled amino acids almost completely. Further experiments showed that the cellular nucleic acid fractions from cancerous cells were the most sensitive to the action of these compounds. [WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: 19Nov64/ ORIG REF: 014/ OTH REF: 002/
Card 1/1 UDC: 615.778.1-092:612.015.348-064+616.015:348.014.46-064-65.778

ACC NR: AP6032585

SOURCE CODE: UR/0062/66/000/008/1334/1339

AUTHOR: Valov, P. I.; Blyumberg, E. A.; Emanuel', N. M.

ORG: Institute of Chemical Physics, Academy of Sciences, SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: Kinetics and mechanism of the combined oxidation of propylene and acetaldehyde

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. ⁸/₈, 1966, 1334-1339

TOPIC TAGS: combustion modifier, oxidation mechanism, free radical, oxidation inhibitor, *oxidation kinetics, acetaldehyde, olefin*

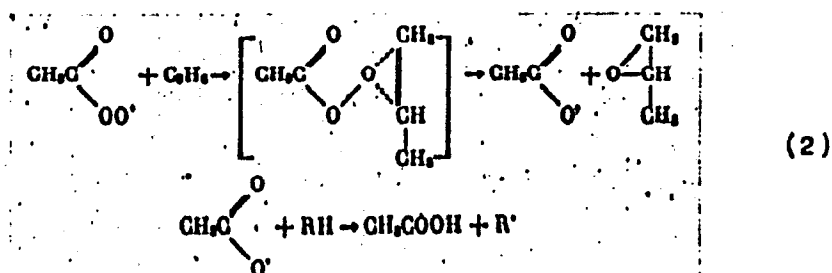
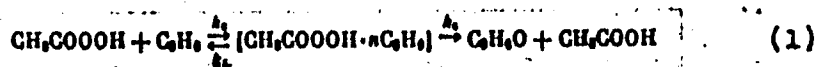
ABSTRACT: A study has been made of the kinetics and mechanism of the combined oxidation of an olefin and an aldehyde. This reaction was previously shown to be a step common to the mechanisms of oxidation of unsaturated hydrocarbons and of the combined oxidation of olefins and organic compounds of various classes. The reagents used were acetaldehyde, propylene, and air. The reaction was carried out in a special stainless steel autoclave at 70-80C and 50 atm. Under these conditions the reaction proceeds in the liquid phase. Reaction products were subjected to chemical and gas-liquid chromatographic analysis. It was

Card 1/4

UDC: 541.124+542.943

ACC NR: AP6032585

found that propylene oxide and acetic acid are the end products of the reaction; propylene glycol monoacetate is formed along with the propylene oxide. This was confirmed by control experiments in which some propylene oxide was added to the initial reagents. A reaction mechanism was postulated for the formation of propylene oxide:

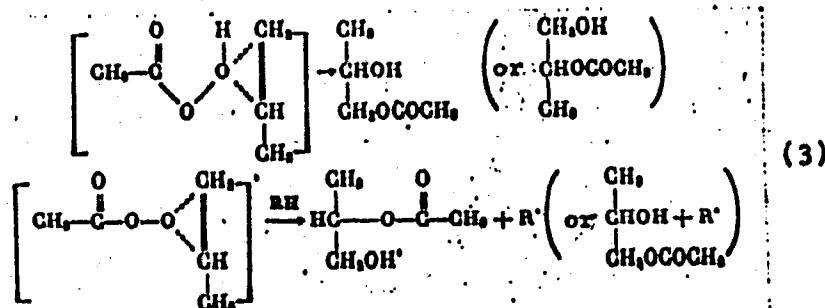


To determine whether reaction (1) or (2) prevails, experiments were carried out in which an inhibitor (ionol) which reacts with free radicals was added to the reaction mixture at the moment corresponding to

Card 2/4

ACC NR: AP6032585

the maximum rate of formation of propylene oxide. On addition of the inhibitor, acetaldehyde consumption and reaction product accumulation virtually ceased; propylene oxide concentration increased only slightly. This indicates that propylene oxide is formed mainly via free radicals (reaction (2)). To determine the contribution of reaction (1), experiments involving the reaction of peracetic acid with propylene were carried out; the rate of formation of propylene oxide was found to be about 15% of its maximum rate of formation in the reaction of interest. It was concluded that the principal epoxidizing agent in the combined oxidation of unsaturated compounds and aldehydes is the acetyl peroxide radical, $RC(=O)OO\cdot$; rather than the corresponding peracid. It was also postulated that propylene glycol is formed via the isomerization of the complex intermediates formed in reactions (1) and (2):



Card 3/4

ACC NR: AP6032585

Thus the reactions of formation of propylene oxide and propylene glycol monoacetate represent an alternate course of the chain propagation reaction, which is simultaneous to the reaction $RO_2 + \text{acetaldehyde}$. This paper represents P. I. Valov's dissertation. Orig. art. has: 4 figures. [WA-68]

SUB CODE: 07,21/ SUBM DATE: 03Feb66/ ORIG REF: 005/
OTH REF: 001

Card 4/4

EMANUILOVA, E.

The effect of certain amino acids on the biosynthesis of
vitamin B₁₂. Dokl. Bolg. akad. nauk 18 no.7:651-654 '65.

1. Submitted March 24, 1964.

RABOV St.; EMANUILOV, Emanuil; PEICHEV, Veselin

Electric parameters of some compensation and bridge speech
systems of the TsB telephone apparatus. Godishnik mash
elekt 12 no. 2:107-120 '62 [publ. '63].

KHALACHEV, V.I.; IVANOV, V.P.; EMANUILOV, E.G.

Experimental determination of optimum values in the resistances
of electroacoustic transformers of the MB-type telephone apparatus.
Godishnik mash elekt 13 no.2:131-140 '63 [publ. '64]

EMANUILOV, Ignat.

Veterinary and sanitation expert testimony concerning milk and dairy products.
Sofia, 1945. 284 p. (Obshtia fonda za podpomagane na studentite ot visshite uchebni
zavedenii v Bulgariia, no. 44)

EMANUILOV, Ignat. .

Veterinary and public health advice on the storage of animal produces. Sofia.
Kamara na narodnata kultura. Sektsiia Nauka i izobretenie, 1946, 428 p.

DAFM

~~EMANUILOV~~ Ignat, prof.; NACHEV, Liubomir

Antibiotic properties of cheese. Izv. mikrob. inst., Sofia Vol.4:
33-39 1953.

1. Chlen-kor. na BAN (for Emanuilov) 2. Chlen-kor. asistent vuv
Vt Veter. med. fakultet (for Nachev)
(MILK,
cheese, antibiotic properties)
(ANTIBIOTICS,
cheese antibiotic properties)

EMANUILOV, Ignat, Chlen-kor. prof.; HACHEV, Lubomir, ml. nauch. sutr.;
VELCHEVA, Pavlina, tekhn. nauch. sutr.

Antagonism of microflora in sheep cheese whey. Izv.mikrob.inst.,
Sofia 5:69-95 1954.

(MILK,
whey, bact. antag. in)

EMANUILOV, IGNAI

Veterinarno-sanitarna edspertiza na khranitelnite produkti of zhivotinski proizvod.
2. ezd. Dofia, Zemizdat, 1956. 421 p. (Veterinary and sanitary inspection of food
products of animal extraction. 2d ed.) DA Not in DLC.
Bulgaria

SO: Monthly Index of East European Accessions (EEAI) LC Vol 7, no 1 Jan 1958

EMANUILOV, Ignat, chl., kor., prof.

~~Louis Pasteur; 60th anniversary of his death. Izv. mikrob. inst.,~~
Sofia 7:128-140 1956.

(BIOGRAPHIES,
Pasteur, Louis (Bul))

F

Country : Bulgaria
 Category : Microbiology. Antibiosis and Symbiosis. Antibiotics.

Abs. Jour : Ref Zhur-Biol., No 23, 1958, No 103751

Author : Yemanuilov, Ignat; Nachev, Lyubomir
 Institut. : Bulgarian Academy of Sciences
 Title : Investigation of the Antibiotic Activity of the
 Microflora of Bulgarian Sour Milk

Orig Pub. : Izv. Otd. biol. i med. nauki, B'lg AN, Ser. eksperim.
 biol. i med., 1957, No 1, 73-86

Abstract : It has been established that there is an in vitro inhibition
 of the growth of intestinal microflora of domestic
 animals, viz., Clostridium sporogenes, Bacillus mycoides,
Bacterium proteus vulgaris, Staphylococcus albus,
Bacillus mesentericus, Bacterium coli and Bacillus
megatherium, by antibiotic substances formed by the
 bacteria of Bulgarian sour milk (Bacterium bulgaricum,
Streptococcus thermophilus). The antibiotic substances
 are destroyed by heating at 80° for 15 minutes, but
 are inactivated by neutralization (at a pH of 7.0).
 Lactic acid in the concentration contained in clotted
 milk does not depress the growth of B. mesentericus
 or B. coli but depresses the growth of the others

Card: 1/2

EMANUILOV, Ign.: NACHEV, L.

Vitamin B₁₂ content in sheep milk cheese. Izv. Mikrob. inst., Sofia no.8:
9-11 1957.

1. Chl. kor. prof. (for Emanuilov). 2. ml. n. sutrudnik (for Nachav).

(VITAMIN B₁₂, determ.
in sheep milk cheese (Bul))

(MILK,
sheep milk cheese, vitamin B₁₂ determ. (Bul))

DULGARIA/Antibiosis and Symbiosis - Antibiotics. F

Abs Jour : Ref Zhur Biol., No 1, 1959, 755

Author : Emanuilov, Ignat

Inst : Microbiological Institute of Bulgarian Academy of Sciences

Title : Comparative Studies of the Presence of Free Amino Acids in Samples of Brinza Cheese Prepared with Bacterial Protease and With Chymosin

Orig Pub : Izv. Mikrobiol. in-t. D"lg. AN, 1957, 8, 59-76

Abstract : No abstract.

EMANUILOV, In. Prof.; NACHEV, L., ml. n. sutrudnik.

Vitamin B₁₂ content in the Bulgarian sour milk (joghurt) yoghurt).
Izv. Mikrob. inst., Sofia no.8:283-290 1957.

1. Chl.-kop. (for Emanuilov).
(VITAMIN B₁₂ in determ.
in yoghurt)
(MILK
vitamin B₁₂ determ. in yoghurt)

*Microbiological Inst.
Bulg. AS*

BULGARIA/Antibiosis and Symbiosis - Antibiotics.

F

Abs Jour : Ref Zhur Biol., No 1, 1959, 756

Author : Emanuilov, I.

Inst : Microbiological Institute of Bulgarian Academy of Sciences

Title : Vitamin B₁₂ Content of Brinza Cheese

Orig Pub : Izv. Mikrobiol. in-t. B'lg. AN, 1957, 8, 309-311

Abstract : No abstract.

Card 1/1

-17-

EMANUILOV, Ignat (Sofia)

Successes and forthcoming problems of the Bulgarian biology. Spisaniie
BAN no.4:36-47 '59. (KEAI 9:11)

1. Chl.kor., Bulgarska akademia na naukite
(Bulgaria--Biology)

EMANUILOV, I.

EMANUILOV, I. Formation of proteolytic ferments (peptidases) from bacteria.
In German. p. 71 Vol. 9, no. 1, Jan./Mar. 1956 DOKLADY., Sofia, Bulgaria.

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4 April 1957

EMANUILOV, I.

Studies on the relationship between bacteria and ascaris in intestinal parasitocenosis in swine and horses. Izv. Mikrob. inst., Sofia no.9: 61-71 1958.

(INTESTINES, microbiology,

bact. parasitocenosis with ascaris in swine & horses (Bul))

(ASCARIS,

parasitocenosis with intestinal bact. in swine & horses (Bul))

EMANUILOV, I.; NACHEV, L.; VELCHEVA, P.

Studies on bacteria synthesizing vitamin B12. Izv. Mikrob. inst., Sofia
no.9:73-83 1958.

(VITAMIN B12, metabolism,
bact. synthesis (Bul))

(BACTERIA,
vitamin B12-synthesizing strains (Bul))

BULGARIA/Human and Animal Physiology (Normal and Pathological)
Metabolism. Vitamins.

T

Abs Jour : Ref Zhur Biol., No 6, 1959, 26382

Author : Yemanuylov, Ignat

Inst :

Title : Vitamin D₁₂

Orig Pub : Priroda (Bulg.), 1958, 7, No 2, 18-21

Abstract : No abstract.

Card 1/1

- 22

MANUILOV, I.

Investigating the interrelationships of bacteria and ascarids
in intestinal parasitocenoses of swine and horses. Izv. AN
SSSR. Ser. biol. no. 2: 228-234 Mr-Apr '59. (MIRA 12:5)

1. Institute of Microbiology, Academy of Sciences, Sofia,
Bulgaria.

(ASCARIDS AND ASCARIASIS) (INTESTINES--BACTERIOLOGY)
(PARASITES--SWINE) (PARASITES--HORSES)

EMANUILOV, Isapt

Forthcoming International Conference on Vitamins in Bulgaria.
Spisanié BAN 5 no.3:32-36 '60. (KEAI 10:5)

1. Chl.-kor.
(VITAMINS)

PERMANQILOV, I.

Studies on cellulose bacteria synthesizing vitamin B₁₂. Mikrobiologii
30 no.2:308-314 Mr-Apr '61. (MIRA 14:6)

1. Institut mikrobiologii Bolgarskoy akademii nauk, Sofiya.
(VITAMIN B₁₂) (BACTERIA, CELLULOSE-DECOMPOSING)

EMANUILOV, Ignat, akad.

Problem of heredity and variability in microorganisms. Spisanie
BAN 7 no.3:18-38 '62.

1. Chlen na Redaktsionnata kolegiia, "Spisanie na Bulgarskata
akademii na naukite".

EMANUELOV, Ignat, akad.

The 2d International Symposium on the Uninterrupted Cultivation of Microorganisms. Spisanie BAN 7 no.3:64-67 '62.

1. Chlen na Redaktsionnata kolegiia, "Spisanie na Bulgarskata akademiia na naukite".

EMANUILOV, Ign.; NACHEV, L.; GESHEVA, R.; DAOV, T.; VELCHEVA, P.; MUTAPCHIEVA, S.

Studies on the effect of some factors on the biosynthesis of
vitamin B₁₂ in silt. Izv. microbiol. inst. 15:53-58 '63

*

EMANUILOV, Ign.; VELCHEVA, P.; NACHEV, L.; TOSHKOV, As.; SHIROVA, L.

Studies on the chemical composition and antibacterial and
antitoxic properties of royal jelly. Izv. microbiol. inst.
15:89-95 '63

*

EMANUILOV, Ign., akad.

Academician Asen I. Khadzhiolov at sixty. Priroda Bulg
12 no. 1: 101-103 Ja-F '63.

1. Zam. gl. redaktor i chlen na Redaktsionnata kolegiia,
"Priroda".

EMANUILOFF, I. [Emanuilov, I.]; MOUTAFCHIEVA, S. [Mutafshieva, S.]

Vitamin B₁₂ in the tissue of cattle. Doklady BAN 16 no.7:
773-776 '63.

EMANUILOV, Ignat, akad.

Trends in the development in biology. Spisanie BAN 9 no. 1/2:
71-76 '64.

EMANUILOV, Ignat, akad.

Two decades of Bulgarian biology. Priroda Bulg 13 no.4:12-16
Jl-Ag '64.

IMANULOV, I.; NACHEV, I.; VELCHEVA, P.; LAOV, T.

Effect of fermentation products containing vitamin B₁₂ on
fowls fed vegetable food. Tr. Izv. microbiol. inst. (Sofia) 16:
105-117 '64

EMANUILOV, Ignat, akad.

Prof. Dr. Stefan Angelov, Member of the Bulgarian Academy
of Sciences; February 28, 1878-October 1, 1964; obituary.
Priroda Bulg 13 no.6:115-116 N-D '64.

EMANUILOV, Ign.; NACHEV, L.; VELCHEVA, P.; DAOV, T.; TOSHEKOV, A.; VULCHANOV, V.;
SHIROVA, L.

Effect of fermentation products containing vitamin B 12 on
fowls fed vegetable food. II. Izv. mikrobiol. inst. (Sofia)
16:91-104 '64

L 30177-66

ACC NR: AP6020311

SOURCE CODE: BU/0011/65/018/007/0651/0654

AUTHOR: Emanuilova, E.

ORG: Microbiological Institute, BAN, Sofia

TITLE: Effect of certain amino acids on the biosynthesis of vitamin B sub 12

SOURCE: Bulgarska akademija na naukite. Doklady, v. 18, no. 7, 1965, 651-654

TOPIC TAGS: amino acid, biosynthesis, vitamin, microbiology

ABSTRACT: Microorganisms contain metabolic pools of nucleotides and amino acids which are on the main line of synthesis of macromolecules. A study of the effect of amino acids or precursors exogenously supplied to microorganisms on the biosynthesis of macromolecules, including vitamin B₁₂ compounds, should throw some light on the action of the mechanisms which govern these syntheses. Consequently, the author investigated the effect of certain amino acids as the only source of nitrogen in a nutrient medium on the biosynthesis of vitamin B₁₂ and the growth of *Azotomonas* sp. kept on agar. Tabulated and other results present the effects of 11 amino acids over periods of 24 to 96 hours. This paper was presented by Academician I. Emanuiloff on 24 March 1964. Orig. art. has: 4 figures and 2 tables. [Orig. art. in Eng.] [JPRS]

SUB CODE: 06 / SUM DATE: 24Mar65 / OTH REF: 005

Card 1/1 22

KUNKIN, Ya.A.; BAL'SHIN, V.G.; BARANNIK, Yu.P.; EMAYKIN, A.I.

Diamond grinding of small high-speed reamers. Mashinostroitel'
no.10:20-21 0 '64. (MIRA 17:11)

BRODSKAYA, Ye.A.; EMAYKINA, V.P.; KOSTRITSKA, A.G. (Kiyev)

Treating dysentery in experimental radiation sickness. Med.rad. 4
no.1:82 Ja '59. (MIRA 12:2)

(RADIATION SICKNESS) (DYSENTERY)

EMAYKINA, V.P.; LEBEDEVA, O.P. (Kiyev)

Some data on the effect of lowered barometric pressure on the
course of influenza in irradiated mice. Med.rad. 4 no. 1:82
Ja '59. (MIRA 12:2)

(INFLUENZA)

(RADIATION SICKNESS)

(ATMOSPHERIC PRESSURE--PHYSIOLOGICAL EFFECT)

EMAYKINA, V.P. (Kiyev)

Morphological characteristics of the course of influenza in chronic radiation injury. Arkh. pat. no.1:54-60 '64.

(MIRA 17:11)

1. Iz patomorfologicheskoy laboratorii (zav. - prof. N.A. Maksimovich) Instituta infektsionnykh bolezney Ministerstva zdoravookhraneniya UkrSSR (dir. - chlen-korrespondent AMN SSSR prof. I.L. Bogdanov).

EMAYKINA, V.P. (Kiyev)

Morphological changes in the lungs of irradiated mice following
infection with influenza. Sbor.nauch.trud. Inst.infek.bol. no.4:104-
109 '64. (MIRA 18:6)

MAKSIMOVICH, Nina Aleksandrovna; BOTSAN, Nikolay Yemel'yanovich;
EMAYKINA, Vera Petrovna; BARSHTEYN, Yu.A., red.

[Pathomorphological changes in influenza and cytologic
diagnosis] Patomorfologicheskie izmeneniia pri grippe i
tsitologicheskaya diagnostika. Kiev, Zdorov'ia, 1965. 161 p.
(MIRA 18:9)

BCZZAY, László, dr. W.-né; BARDOS, Vera, dr., dr. F.-né; EMBER, Erika, dr.
dr. M.-né; RUDAS, Lenke, dr., dr. SZ.-né.

Problems of supplying the members of collective farms with
dental prostheses in the district of Sellye. Fogorv. szemle
58 no.5:129-135 My '65

1. A Pécsi Orvostudományi Egyetem Stomatológiai Klinikájáról
(Igazgató: Schranz, Dénes, dr., egyetemi tanár).

EMBER, Gabor

Food industry machines and installations at the 1964 Leipzig
Spring Fair. Elelm ipar 18 no. 5: 149-158 My '64.

1. Technical Department, Ministry of Food, Budapest.

"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041211

APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041211

✓ Apparatus for measuring vapor-liquid equilibria of homogeneous and heterogeneous systems. Janos Hollo and Gyorgy Bihari, Yearbook Int. Assoc. Pure Appl. Chem., Budapest, Hung. 1952 III-1954 VIII, 94-97.

AM
CX
The app. is based on continuous distill. and recirculation. It is a modified and improved version of the Ottmer app. (cf. C.A. 22, 8540). Parallel fractionation of the escaping vapors is eliminated by a thermostatic jacket. Heating is obtained by thermosiphon action controlled by sliding resistance. The former serves also for the stirring of the liquid. The returning tube of the condensate is connected to the heating tube of the thermosiphon line in order to eliminate bumping and layering of the condensate. In case of heterogeneous systems, in addition to the thermosiphon agitation, the use of a magnetic stirrer is recommended. A comparatively large vol. of still body (1 l.) is needed in order to reach the state of equil. rapidly and to prevent a change in the equil. owing to sampling. Boiling a 0.5% methylene blue soln. failed to color the condensate blue; boiling a satd. BaCl_2 soln. did not give any reaction for Ba or Cl ions in the condensate, thus proving that no splashing occurs. Equil. curves of CHCl_3 -gasoline system were detd. and found identical with those given in the literature. In heterogeneous systems the equil. can be reached in 0.5 hr. In these systems the sample size must be kept small; in homogeneous systems larger samples can be taken.

J. A. Sillard

EMBER, G.

HUNGARY / Physical Chemistry. Thermodynamics. Thermo-chemistry. Physico-Chemical Analysis. Phase Transition.

B

Abs Jour: Ref Zhur-Khimiya, No 11, 1958, 35368

Author : Hollo Janos, Ember Gyergy, Lengyel Tamas, Wieg Andras

Inst : Magyar Tud. Akad.

Title : Investigation of the Equilibrium of Vaporous and Liquid Phases of the Quaternary System Ethanol-Heptane-Toluene-Aniline.

Orig Pub: Kem. Tud, Oszt. Kozl., 1957, 8, No 4, 449-475

Abstract: The equilibrium of the quaternary system ethanol (I) -heptane (II)-toluene (III)-aniline (IV) has been experimentally and theoretically investigated. A device for the determination of the liquid-vapor equilibrium is described. The Margules and Van Laar

Card 1/3

HUNGARY / Physical Chemistry. Thermodynamics. Thermochemistry. Physico-Chemical Analysis. Phase Transition.

B

Abs Jour: Ref Zhur-Khimiya, No 11, 1958, 35368

Abstract: equation constants have been determined for the systems I-II, I-III, II-IV. These equations are not applicable to the highly asymmetric systems I-IV, III-IV and II-IV. The complete equilibrium curve for the systems I-IV, III-IV has been plotted in accordance with the experimental data with the aid of the Sketched-Hamer equation. Only the Margules equation can be applied in calculating the quaternary system. The Margules constant for the II-IV system has been determined by the indirect Carlson-Coburn method (according to the satu-

Card 2/3

HUNGARY / Physical Chemistry. Thermodynamics. Thermochemistry. Physico-Chemical Analysis. Phase Transition.

B

Abs Jour: rated vapor isothermic pressure-composition relation). Various possibilities of calculating the equilibrium of the quaternary system are discussed. A new calculating method, developed by the authors is reported. It consists in the following: the constants indispensable to the calculation and pertaining to ternary systems, have been calculated from the experimental measurements of the quaternary system equilibrium data, with the application of an equation, containing activity coefficient logarithms. Although the new method calls for the conducting of one measurement for the quaternary system, it eliminates the measuring and calculating of ternary systems. The method is simple and produces accurate results.

Card 3/3

EMBER, Gy

Distr: 4E3d/4E2c(j)

7

11
2-MAY

The vapor-liquid equilibrium of the quaternary system ethanol-heptane-toluene-xylene. J. Hollo, Gy. Ember, F. Lengyel, and A. Wieg (Tech. Univ., Budapest, Hung.) *Acta Chim. Acad. Sci.* 13, 307-33 (1957) (in English). Liquid and vapor compns. at 2 or more temps. were measured of all the possible binary, ternary, and quaternary systems selected from the components EtOH (I), heptane (II), toluene (III), and PhNH₄ (IV). The results were used to calc. the consts. for the Margules equations applicable to binary, ternary, and quaternary systems (cf. C.A. 43, 939i; Wohl, C.A. 40, 4330⁴). The van Laar consts. also were calc. for the systems I-II, I-III, and II-III. In binary systems, the following values were obtained for the quantity A_{ij} , the log of the activity coeff., where the subscript i denotes the substance, the log of whose activity coeff. is given, the subscript j denotes the 2nd component of the mixt., and the numbers 1-4 refer to the substances I-IV, resp.: $A_{11} = 0.83$, $A_{12} = 0.37$, $A_{13} = 2.19$, $A_{14} = 0.17$, $A_{21} = 1.29$, $A_{22} = 0.45$, $A_{23} = 0.83$, $A_{24} = 0.60$, $A_{31} = 0.95$, $A_{32} = 0.12$, $A_{33} = 0.81$, and $A_{41} = 1.50$. Values presented for the ternary systems were not concordant. For the quaternary system equations in terms of binary and ternary consts. were used the values of the ternary consts. being derived from measurements on the quaternary system. Agreement was fair between measured and calc. values of the compns. of the vapor at given liquid compns. in the quaternary system. An app. for measurement of vapor-liquid equlib. is described. Patricia H. Moyer

cc
4

gaf

EMBER, Gy.

Distr: 4E2c(j)

19. Investigations on the vapour-liquid equilibrium of the quaternary system ethanol-heptane-toluene-aniline. (In English) J. Hollo, Gy. Ember, T. Tencsely, A. Wieg. *Acta Chimica Academiae Scientiarum Hungaricae*. Vol. 13, 1958, No. 3-4, pp. 307-333, 7 figs., 11 tabs.

A method has been elaborated for the reliable analysis of the quaternary system, subsequently the vapour-liquid equilibria of the corresponding binary and ternary systems and that of the quaternary system were examined

in detail. The probable binary and ternary systems were investigated in respect to the application of theoretical calculations, the values of the corresponding Margules constants and in certain cases those of the van Laar constants were established. On the basis of the binary constants a new method of calculation was evolved for the determination of quaternary equilibria using the three-index Margules equation.

9.7500

S/194/62/000/006/007/232
D222/D309

AUTHOR: Ember, György

TITLE: Electronic pulse-counter and storage circuit

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
no. 6, 1962, abstract 6-1-58 t (Magyar tud. akad.
közép. fiz. kutató int. közl., 1961, 9, no. 1-2, 87-98)

TEXT: The possibilities which have not yet been utilized for the construction of electronic pulse-counter and storage circuits are discussed. As a result of experimental work it was found that the DC state-indicators can be advantageously replaced by AC indicators when frequency and phase are utilized, and it becomes possible to construct more economical counter circuits. The results of the experiments are given. 7 figures. [Abstractor's note: Complete translation.]

Card 1/1

EMBER, Kalman, dr., okleveles banyamernok; VEKENY, Henrik,
okleveles banyamernok

Dust measuring system in Hungarian mines; tasks of its
development and the achievements obtained on the basis of
dust measuring data. Bany lap 97 no. 2:87-92 F '64.

EMBER, Kalman, dr.; PALOVICS, Pal; DOBOS, Gyorgy, dr.; ELES, Laszlo;
GAGYI Palffy, Andras, dr.; RADO, Aladar; SAFAR, Laszlo; SERFOZO,
Ivan

Report on the Executive Committee session of the National
Hungarian Mining and Metallurgical Society, Inota, December 7,
1963. Bany lap 97 no. 2:133-140 F '64.

1. Orszagos Magyar Banyaszati es Kohaszati Egyesulet alelnoke
(for Ember).
2. "Banyaszati Lapok" szerkeszto bizottsagi tag'a (for Gagyí
Palffy and Rado).

ANKOS, Frigyes; ETEER, Kalman, dr.

Executive Committee session of the Hungarian National Mining
and Metallurgical Society. Koh lap 97 no. 2:57-64, 5 '64.

1. Editor-in-Chief, "Kohászati Lapok", Budapest (for Ankos).
2. Vice-President, Hungarian Association of Mining and
Metallurgy (for Ember).

EMBER, Karoly

Protection of thermal waters in Budapest. Hidrologiai kozlony 40
no.1:88 F '60.

1. "Hidrologiai Kozlony" szerkeszto bizottsagi tagja.

SZELL, Istvan, dr.; EMBER, Magda, dr.; NOVAK, Erna, dr.

Treatment of trichomonal vaginitis with imidazole derivate.
Magy.noorv.lap. 26 no.5:313-320 S '63.

1. A Szegedi Orvostudományi Egyetem Női Klinikájának (Igazgató:
Szentágh Ferenc dr. egy. tanár) és A Szeged Városi Közegészségügyi-
Járványügyi Állomás parasitológiai laboratóriumának Közleménye
(Igazgató: Vetro János dr. főorvos).

EMBER, Magda

HUNGARY

EMBER, Magda, Dr. SZELL, Istvan, Dr; Szeged Town Public Health and Epidemiological Station, Parazitological Laboratory (Szeged Varosi Kozegeszsegugyi-Jarvanyugyi Allamas, Parazitologiai Laboratorium) and Medical University of Szeged, Obstetrical and Gynecological Clinic (Szegedi Orvostudomanyi Egyetem, Szuleszeti es Megyogynaszati Klinika)

"The Prevalence of the Trichomonas and Candida Infection of the Vagina."

Budapest, Orvosi Hetilap, Vol 104, No 5, 3 Feb 63, pages 202-204.

^{Hungarian}
Abstract: [Authors' summary modified] 1389 women were tested for trichomonas, 1406 for candida infection of the vagina. Trichomonas infection was found in 47 percent (61 percent of the pregnant women), candida infection was 11 percent. The highest incidence of infection was found around fifty years of age. The incidence of candida infections, although lower, was found to be proportional to that of trichomonas distribution. [9 Western, 7 Hungarian references]

1/1

EMBER, Mihaly

Rebuild of machine parts. Mezogazd techn 1 no.3:18 '61.

EMBERGER O. Vliv opozdeného zpracovávání stolice na spolehlivost bakteriologické

diagnostiky salmonellos The influence of delayed handling of stools on the reliability of bacteriological diagnosis of salmonella infections Casopis Lakaru Ceskych 1947, 86/3 (81-88) Graphs 9

Known positive stools from typhoid patients and stools artificially infected with *Salmonella* Para-B. were kept for up to 14 days at different temperatures (22° C, 16° C, 10° C, and 5° C). The number of coliforms and pathogens per gram of stool was calculated from samples taken daily, by plating suitable dilution of Endo's plates. For isolation of the pathogens Kauffmann's medium was also used. It was found that the maximal concentration of coliforms depends on the nutritional quality of the stool. The number of pathogenic organisms present in the fresh stool undergoes three kinds of changes. First: it remains stationary for a few days and declines slowly afterwards, secondly: it declines rapidly, and thirdly: it increases slightly but never as much as that of coliforms. Which of these changes takes place will depend on the type of pathogen, on the strain itself, on the antagonism of coliforms present and on the presence or absence of bacteriophage. The probability of a successful isolation of the pathogenic organism will then depend: (1) on the kind of change the number of pathogens undergoes and on the increase in number of coliforms. Both these changes are dependant on the temperature under which the sample of stool is kept; (2) on the absolute number of pathogens in the sample; (3) on the bacteriological methods used. Evidence is presented that even with the use of Kauffmann's medium the probability of isolating *S. typhosum* from a positive stool kept at room temperature declines rapidly from 80 per cent on the second day to 50 per cent on the fourth day. Stool samples with *S. para-B.* kept under similar conditions

Page II

yielded 80 per cent positive cultures even two weeks after collection. The author therefore concludes that it is most essential that stool specimen be examined as soon as possible after collection.

Traub-Brooklyn

So: Medical Microbiology and Hygiene, Section IV, Vol. I, #1-6

COUNTRY : Czechoslovakia H-28
CATEGORY :
ABS. JOUR. : AZKhim., No. 1959, No. 88230
AUTHOR : Emberger, O.
INST. :
TITLE : Disinfection Problems in the Food Industry

ORIG. PUB. : Prumysl potravin, 1959, 10, No 1, Pril.:
Desinf. potravin. prumyslu, 12-17

ABSTRACT : A review. Classification of microorganisms
which contaminate food products, and avenues of infection
are considered. Procedures of disinfection of equipment,
premises and personnel are described.

CARD:

EMBERGER, O.

EMBERGER, O.

CSSR

Institute of Hygiene (Ústav hygieny), Prague

Prague, Ceskoslovenska hygiena, No 3, 1963, pp 137-146

"Investigation of the Sanitary Importance of Aerobic Sporulating Micro-organisms. (Preliminary report)"

BULGARIA/Solid State Physics - Solid State Theory

E-2

Abs Jour : Ref Zhur - Fizika, No 1, 1959, No 785

Author : Embersleben Otto

Inst : -

Title : Linear Relations Between the Madelung Constants

Orig Pub : Izv. Matem. in-t. B"lg. AN, 1957, 2, No 2, 87-120

Abstract : The author considers the Madelung constants of the crystal-line structures of the type NaCl, CsCl, ZnS, and CaF₂. It is shown that there exists between the Madelung constants of these structures certain linear relations with integer coefficients, and only two Madelung constants are independent. Each of the Madelung constants can be expressed in terms of two Einstein ζ functions. A method is developed for the numerical calculations of the values of the ζ functions. The values of the Madelung constants for the above structures are given with 12 (or more) significant figures.

M.A. Krivoglaz

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EMBERGER, O.; HRUBEY, S.; MAREŠOVÁ, P.; Technická spolupráce: KRALOVÁ, Z.;
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CZECHOSLOVAKIA

EMBERGER, O; HRUBY, S; MARESOVA, P.

1. Hygiene Institute (Ustav hygieny), Prague; 2. Department of Food Hygiene of the Medical Faculty of Hygiene of Charles University (Oddeleni hygieny vyzivy lekarske fakulty hygienicke KU), Prague

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Author : Emchuk, E. M.

Inst : Zoological Institute of Academy of Sciences UkSSR

Title : Material on the Fauna and Ecology of Ixodial
Ticks of Krymskaya Oblast.

Orig Pub: Tr. In-tu zool. AN URSR, 1957, 14, 3-17

Abstract: 23 species of ixodial ticks have been recorded
in Krymskaya Oblast many of which are found
around definite areas. Wild animals and birds
have an important part in the maintenance of
the high tick census in the Crimea, particularly
in its mountainous area. - . . .

Card 1/1

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SOV/112-57-6-12921

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1957, Nr 6, p 182 (USSR)

AUTHOR: Emdin, L. A..

TITLE: Telemechanics in a Municipal Gas System
(Telemekhanizatsiya gorodskogo gazovogo khozyaystva)

PERIODICAL: V sb.: Telemekhaniz. v nar. kh-ve. M., AS USSR, 1956,
pp 438-456

ABSTRACT: Fundamental requirements for a dispatcher service of a municipal gas system are considered. Two-, three-, and multistage systems of gas distribution are described. The central dispatcher service should secure:
(a) distribution of gas streams among various parts of the system;
(b) maintaining of specified conditions in the system; (c) redistribution of gas streams depending on operating conditions or faults; (d) organization of repairs. An organization scheme of the dispatcher service is presented. Telemechanical and communication systems are listed which should be used at the main gas-distributing station, at the gas plant, and at the gasholder stations.

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SOV/112-57-6-12921

Telemechanics in a Municipal Gas System

Block diagrams are presented of the dispatcher's communication between the central dispatcher station and the gasholder station or a network regulating station. Fundamental specifications are considered that are applicable to the telemechanical means for a municipal gas system: (1) telemechanical devices should be designed for only one pair of wires linking the central dispatcher station with each network regulating station; (2) the telemetering cycle should last 2-3 sec; (3) automatic telemetering substations should be used as an intermediary relaying link between the pickups and the receiver at the central dispatcher station; (4) telemetering systems should be equipped with special signaling that would report any faulty condition of the line upsetting normal operation of the system; (5) instead of continuous transmission of all controlled quantities to the central dispatcher station, only deviations from specified conditions should be transmitted, as well as sporadic telemeter indications upon request; (6) a cyclic telemetering system is preferable to a continuous one; (7) telemeter pickups at the network regulating stations should be of an

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